

MAR 20 2008

REMARKS

Claims 1-27 are pending in the application and stand rejected. Applicant has cancelled claims 3, 4, 6, 7, 9, 17, 18, and 25 and 26, without prejudice. Claims 1-2, 5, 8, 10-16, 19-24, and 27 remain pending in this application. Applicants have rewritten claims 8 and 10 in independent claim, and amended claim 12 to provide a more clear antecedent for the opposed positions of the magnet units.

REJECTIONS UNDER 35 U.S.C. § 103

Applicant respectfully requests reconsideration of the rejection of claims 1 – 21 under 35 U.S.C. 103(a) as being unpatentable over Matsutani, U.S. Patent No. 4,875,485, in view of Creighton, WO99/23934 (which corresponds to U.S. Patent No. 6,459,924).

Claims 1 and 2

Claim 1 (and thus claim 2 which depends from claim 1) requires “a control for operating the positioners of each magnet unit to selectively change the positions of the magnets to maintain the magnetic field direction applied to the operating region and to the magnetically responsive device by the magnets while the locations of the magnet units relative to the operating region change.” This required control allows the positions of the magnets to be changed without changing the direction of the magnetic field being applied by the magnets, and thus not change the direction of the medical device being navigated by the magnets. Neither Matsutani nor Creighton teach or suggest such a control. There is nothing pertinent in Matsutani regarding the movement of the magnets. In Creighton it is clear that the problem is solved in an entirely different way. Creighton teaches either retracting the magnets before moving them (so their magnetic fields don't change the direction of the medical device when the magnets are moved) or interposing a magnetic shield (again, so that their magnetic fields don't change the direction of the medical device when the magnets are moved). See U.S. Patent No. 6,459,824, col. 5, lines 40-50.

Neither Matsutani nor Creighton teach or even suggest a control for causing coordinated movement of the magnets "to maintain the magnetic field direction applied to the operating region and to the magnetically responsive device by the magnets while the locations of the magnet units relative to the operating region change" as required by these claims. Matsutani has no relevant teaching, and Creighton teaches a different method of allowing the magnets to move without disturbing the magnetic medical device.

For at least these reasons, applicant respectfully submits that the rejection of claims 1 and 2 should be withdrawn.

Claim 5

Claim 5 requires "a control for operating the positioners of each magnet unit to selectively change the positions of the magnets to apply a magnetic field to a magnetically responsive device in the operating region based upon an input of a desired direction from the user and the strength of the field that is applied by the magnets to the operating region." Neither Matsutani nor Creighton teach or even suggest a control for applying a magnetic field to orient a medical device based upon an input direction and the strength of the field being applied to the operating region.

For at least these reasons, applicant respectfully submits that the rejection of claim 5 should be withdrawn.

Claim 8

Claim 8, like claims 1 and 2 discussed above, requires a "a controller for controlling the positioners of each of the magnet units to change the positions of the magnets as the magnet units move to maintain the magnetic field direction." Neither Matsutani nor Creighton teach or even suggest a control for causing coordinated movement of the magnets "to maintain the magnetic field direction applied to the operating region and to the magnetically responsive device by the magnets while the locations of the magnet units relative to the operating region change" as required by these claims. Matsutani has no relevant teaching, and Creighton teaches a different

method of allowing the magnets to move without disturbing the magnetic medical device.

For at least these reasons, applicant respectfully submits that the rejection of claim 8 should be withdrawn.

Claims 10 and 11

Claim 10 (and claim 11 which depends from claim 10) requires a control for "controlling the positioners in response to the user-input selected direction and the strength of the field in the operating region." Neither Matsutani nor Creighton teach or even suggest a control for applying a magnetic field to orient a medical device based upon an input direction and the strength of the field being applied to the operating region.

For at least these reasons, applicant respectfully submits that the rejection of claims 10 and 11 should be withdrawn.

Claim 11

Claim 11 is allowable for the same reasons Claims 11 further requires that the controller" controls the positioners in response to movement of the magnet units, to apply a field whose direction is determined based upon a user-selected direction and the strength of the field in the operation region. Neither Matsutani nor Creighton teach or even suggest a control for operating positions to change the position of magnets in response to movement of the magnet units. This allows the selected or input field to be maintained even as the magnets are moved.

For at least these reasons, applicant respectfully submits that the rejection of claim 11 should be withdrawn.

Claim 12-16

Claim 12 (and claims 13-16 which depend from claim 12) requires a support for mounting the magnet units on opposite sides of the subject support in generally opposed relation to apply the magnetic field to an operating region in the body on the subject support, the support permitting the controlled rotation of the units about the patient support, while retaining the units in opposed relation. While Matsutani shows

magnets in generally opposed relationship, it does not teach or suggest a support that permits controlled rotation of the magnet units about the patient support *while retaining the units in opposed relation*. Creighton does not teach supporting the magnets in generally opposed relationship, nor does it teach or even suggest a support that permits the controlled rotation of the units about the patient support, while retaining the units in opposed relation.

Further, the claims require that the first axes of the magnet units are parallel, and claim 16 further requires that the first axes of the magnet units are collinear and extend through the operating region. Creighton does not teach this particularly arrangement of opposed magnets.

Claims 19-21

Claim 19 (and claims 20 and 21 which depend from them) requires "selectively rotating and pivoting each magnet to maintain the magnetic field direction projected by the moving magnets as the units move on the support about an operating region of the subject to selectively orient a magnetically responsive medical device." As discussed above with respect to claims 1 and 2, and claim 8, neither Matsutani nor Creighton teach or even suggest a control for causing coordinated movement of the magnets "to maintain the magnetic field direction applied to the operating region and to the magnetically responsive device by the magnets while the locations of the magnet units relative to the operating region change" as required by these claims. Matsutani has no relevant teaching, and Creighton teaches a different method of allowing the magnets to move without disturbing the magnetic medical device. This allows the magnets to be moved out of the way of imaging and other equipment, without disturbing the medical device being guided.

For at least these reasons, applicant respectfully submits that the rejection of claims 19-21 should be withdrawn.

Applicant respectfully requests reconsideration of the rejection of Claims 5, 8-11, 19-20, 22 and 26 as unpatentable over Matsutani, U.S. Patent No. 4,875,485, in view of Creighton, WO99/23934 (which corresponds to U.S. Patent No. 6,459,924).

Claims 5, 8-11, and 19-20

The patentability of claims 5, 8-11, and 19-20 over Matsutani and Creighton is discussed above.

Claim 22

Claim 22 depends from claim 19, and is allowable for the same reasons discussed above with respect to claim 19. Further claim 22 specifically claims that "the positions of the magnets are adjusted as the magnet units move to change the direction of the magnetic field applied by the magnet units to maintain the device in substantially the selected direction despite changes in the distance between the magnet units and the operating region." There is not teaching or suggestion in Matsutani and Creighton of adjusting the positions of magnets within a magnet unit to maintain the field applied by the magnet units as the magnet units are moved.

For at least these reasons, applicant respectfully submits that the rejection of claim 22 should be withdrawn.

Applicant respectfully requests reconsideration of the rejection of Claims 21-24 as unpatentable over Matsutani, U.S. Patent No. 4,875,485, in view of Creighton, WO99/23934 (which corresponds to U.S. Patent No. 6,459,924), in further view of Ritter, U.S. Patent No. 6,241,671.

Claim 21

Claim 21 depends from claim 19, and is allowable for the same reasons discussed above with respect to claim 19. Further claim 21 specifically claims that the positions of the magnets in the magnet units are adjusted while moving the magnet units to accommodate movements of an imaging system to maintain the desired orientation of the medical device. Matsutani, Creighton, and Ritter do not teach moving repositioning the magnets within magnet units to maintain the orientation of a medical device as the magnet units themselves are repositioned to accommodate an imaging system. As discussed above, Creighton teaches either retracting the magnets or shielding them.

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Claim 22

Claim 22 is allowable for the same reasons discussed above.

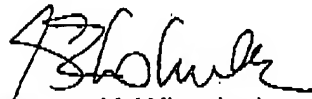
Claims 23 and 24

Claims 23 and 24 depends from claim 22, and are allowable for the same reasons discussed above with respect to claim 22.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (314) 726-7505.

Respectfully submitted,


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